JOHN P. DAVIS

CURRICULUM VITÆ

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CURRENT POSITIONS

University of Alberta, Edmonton, Alberta
Professor, 2021 to present

Zero Point Cryogenics
Co-Founder and Chief Technology Officer

PREVIOUS EXPERIENCE & EDUCATION

University of Alberta, Edmonton, Alberta
Associate Professor: 2016 to 2021
Assistant Professor: 2010 to 2016

University of Alberta, Edmonton, Alberta
Post-Doctoral Fellow: June 2008 to September 2010
Adviser: Mark R. Freeman

Northwestern University, Evanston, Illinois
Ph.D. in Physics: Fall 2001 to April 17^{th}, 2008
Adviser: William P. Halperin
Committee: William P. Halperin, James A. Sauls and John B. Ketterson
Thesis: "Transverse Sound Spectroscopy of Excited Cooper Pair States in Superfluid ^{3}He"

Northwestern University, Evanston, Illinois
Master's in Physics: December 2003
Adviser: William P. Halperin

Washington University, St. Louis, Missouri
Bachelor's in Physics with Honors: Spring 2001
Honors Thesis Advisers: Kenneth F. Kelton and Patrick C. Gibbons

HONORS

- ◇ Alfred P. Sloan Fellow, 2013-2015
- ◇ Petro-Canada Young Innovator Award, 2016
- ◇ Discovery Accelerator Awardee, 2016
- ◇ Provost's Award for Early Achievement of Excellence in Undergraduate Teaching, 2014
- ◇ ASTech (Alberta Science and Technology) 'Distinction' Award for Zero Point Cryogenics: Early Adopter of Alberta Technology, 2022
- ◇ Alberta Innovates Strategic Chair, 2012-2016
- ◇ Teaching "Honour Roll", University of Alberta Faculty of Science, 2014
- ◇ Teaching Excellence Appreciation Award from the Delta Chi Fraternity, University of Alberta Chapter, 2012
- ◇ Inaugural Fellow of the National Institute for Nanotechnology, NRC
- ◇ Associate Member of the former Canadian Institute for Advanced Research (CIFAR) Nanoelectronics Program, 2010-2013
- ◇ *Summa Cum Laude*, Washington University, St. Louis, Missouri, 2001

PUBLICATIONS

79. Overcoming intrinsic material limitations through cavity feedback, **M. Ebrahimi**, **Y. Huang**, V.A.S.V. Bittencourt, **A. Rashedi** A. Metelmann and J.P. Davis, *submitted to Phys. Rev. X* (2026). [arXiv:2603.13515]

78. Bistable Fourth Sound Resonance in Superfluid ^{3}He-B due to Gap Suppression, **A.J. Shook**, **D. Malhotra**, **A. Muhikira** and J.P. Davis, *reviews received at Phys. Rev. B* (2026). [arXiv:2603.27131]

77. Topologically-protected remanent vortices in confined superfluid ^{3}He, **A.J. Shook**, **D. Malhotra**, **A. Muhikira**, **V. Vadakkumbatt** and J.P. Davis, *accepted to Phys. Rev. Research* (2026). [arXiv:2412.08765]

76. Coherent perfect absorption: zero reflection without linewidth suppression, **M. Ebrahimi**, **Y. Huang**, **A. Rashedi** and J.P. Davis, *Phys. Rev. Research* 8, 013261 (2026). [doi:10.1103/zrmm-6ps2]

75. Quantum technology: prospects for new thermometric and radiometric sensor development, A.D.W. Todd, Y.E. Serge-Correales, J.P. Davis, R. Foote, N. Garg, R. Rocha Gonçalves, E. Hemmer, **Y. Huang**, J. Jin, C. Kaur, L. Livadaru, A. Peruzzi, J. Pitters, P.M.C. Rourke, J.P. Shaffer, S. Shaw, P. Shen, C. Wyenberg, R. Wolkow, *Philosophical Transactions A* 384, 20250042 (2026). [doi:'10.1098/rsta.2025.0042]

74. Dimensional crossover of superfluid ^{3}He in a magnetic field, **L. Saraj**, **D. Malhotra**, **A. Muhikira**, **A.J. Shook**, J.P. Davis and I. Boettcher, *Phys. Rev. B* 112, 174509 (2025). [doi:10.1103/jfwt-f3bw]

73. Photonic crystal cavities based on suspended yttrium iron garnet nanobeams, **A. Rashedi**, **M. Ebrahimi**, **Y. Huang**, **M.J. Rudd** and J.P. Davis, *Phys. Rev. Applied* 24, 054017 (2025). - *Selected as an Editor's Suggestion* [doi:10.1103/xptl-hx1j]

72. Cryogenic magnomechanics for thermometry applications, **Y. Huang**, P.M.C. Rourke, A. Peruzzi, J. Jin, **M. Ebrahimi**, **A. Rashedi** and J.P. Davis, *Appl. Phys. Lett.* 127, 082405 (2025). [doi:10.1063/5.0271756]

71. Continuously cooled ^{3}He/^{4}He phase-separation refrigerator, P. H. Kim, M. Hirschel, J. Suranyi, and J.P. Davis, *Phys. Rev. Applied* 24, 014042 (2025). [doi:10.1103/6mjc-zz6z]

70. Magnon-microwave backaction noise evasion in cavity magnomechanics, V.A.S.V. Bittencourt, **C.A. Potts**, J.P. Davis and A. Metelmann, *Communications Physics* 8, 247 (2025). [doi:10.1038/s42005-025-02017-0]

69. Manipulating optical absorption and polarization using microwave control in an atomic vapour, A. Tretiakov, **C.A. Potts**, Y.Y. Lu, J.P. Davis and L.J. LeBlanc, *JPhys Photonics* 6, 035007 (2024). [doi:10.1088/2515-7647/ad2ac8]

68. HeLIOS: The superfluid helium ultralight dark matter detector, **M. Hirschel**, **V. Vadakkumbatt**, **N.P. Baker**, **F.M. Schweizer**, J.C. Sankey, S. Singh and J.P. Davis, *Phys. Rev. D* 109, 095011 (2024). [doi:10.1103/PhysRevD.109.095011]

67. Surface state dissipation in confined ^{3}He-A, **A.J. Shook**, **E. Varga**, I. Boettcher and J.P. Davis, *Phys. Rev. Lett.* 132, 156001 (2024). [doi:10.1103/PhysRevLett.132.15600]

66. Three-tone coherent microwave electromechanical measurement of a superfluid Helmholtz resonator, **S. Spence**, **E. Varga**, **C.A. Potts** and J.P. Davis, *Appl. Phys. Lett.* 123, 114001 (2023). [doi:10.1063/5.0165488]

65. Magnomechanical backaction corrections due to coupling to higher order Walker modes and Kerr nonlinearities, V.A.S.V. Bittencourt, **C.A. Potts**, **Y. Huang**, J.P. Davis and S. Viola Kusminskiy, *Phys. Rev. B* 107, 144411 (2023). [doi:10.1103/PhysRevB.107.144411]

64. Dynamical backaction evading magnomechanics, **C.A. Potts**, **Y. Huang**, V.A.S.V. Bittencourt, S. Viola Kusminskiy and J.P. Davis, *Phys. Rev. B* 107, L140405 (2023). [doi:10.1103/PhysRevB.107.L140405]

63. Precision measurements of the zero temperature dielectric constant and density of liquid ^{4}He, **R.T. Learn**, **E. Varga**, **V. Vadakkumbatt** and J.P. Davis, *Phys. Rev. B* 106, 214509 (2022). [doi:10.1103/PhysRevB.106.214509]

62. Surface-dominated finite size effects in nanoconfined superfluid helium, **E. Varga**, **C. Undershute** and J.P. Davis, *Phys. Rev. Lett.* 129, 145301 (2022). [doi:10.1103/PhysRevLett.129.145301]

61. Polymer-loaded three dimensional microwave cavities for hybrid quantum systems, **M. Ruether**, **C.A. Potts**, J.P. Davis and L.J. LeBlanc, *J. Phys. Commun.* 5, 121001 (2021). [doi:10.1088/2399-6528/ac3cff]

60. Electromechanical feedback control of nanoscale superflow, **E. Varga** and J.P. Davis, *New Journal of Physics* 23, 113041 (2021). [doi:10.1088/1367-2630/ac37c6]

59. Prototype superfluid gravitational wave detector, **V. Vadakkumbatt**, **M. Hirschel**, J. Manley, **T.J. Clark** S. Singh and J.P. Davis, *Phys. Rev. D* 104, 082001 (2021). [doi:10.1103/PhysRevD.104.082001]

58. Strong-coupling corrections to hard domain walls in superfluid 3He-B, **M.J. Rudd**, P. Senarath Yapa, **A.J. Shook**, J. Maciejko, and J.P. Davis, *Phys. Rev. B* 104, 094520 (2021). [doi:10.1103/PhysRevB.104.094520]

57. Dynamical backaction magnomechanics, **C.A. Potts**, **E. Varga**, V.A.S.V. Bittencourt, S. Viola Kusminskiy and J.P. Davis, *Phys. Rev. X* 11, 031053 (2021). [doi:10.1103/PhysRevX.11.031053]

56. Observation of bistable turbulence in quasi-two-dimensional superflow, **E. Varga**, **V. Vadakkumbatt**, **A.J. Shook**, **P.H. Kim** and J.P. Davis, *Phys. Rev. Lett.* 125, 025301 (2020). - *Selected as an Editors' Suggestion* [doi:10.1103/PhysRevLett.125.025301]

55. Strong magnon-photon coupling within a tunable cryogenic microwave cavity, **C.A. Potts** and J.P. Davis, *Appl. Phys. Lett.* 116, 263503 (2020). [doi:10.1063/5.0015660]

54. Magnon-phonon quantum correlation thermometry, **C.A. Potts**, V.A.S.V. Bittencourt, S. Viola Kusminskiy and J.P. Davis, *Phys. Rev. Applied* 13, 064001 (2020). [doi:10.1103/PhysRevApplied.13.064001]

53. Wavelength transduction from a 3D microwave cavity to telecom using piezoelectric optomechanical crystals, **H. Ramp**, **T.J. Clark**, **B.D. Hauer**, **C. Doolin**, K.C. Balram, K. Srinivasan and J.P. Davis, *Appl. Phys. Lett.* 116, 174005 (2020). - *Selected as Feature article and for cover* [doi:10.1063/5.0002160] - also selected as a Scilight: [doi:10.1063/10.0001223]

52. Atomic microwave-to-optical signal transduction via magnetic-field coupling in a resonant microwave cavity, A. Tretiakov, **C.A. Potts**, T S. Lee, **M.J. Thiessen**, J.P. Davis and L.J. LeBlanc, *Appl. Phys. Lett.* 116, 164101 (2020). - *Selected as Feature article and for cover* [doi:10.1063/1.5144616]

51. Stabilized pair density wave via nanoscale confinement of superfluid ^{3}He, **A.J. Shook**, **V. Vadakkumbatt**, P. Senarath Yapa, **C. Doolin**, R. Boyack, **P.H. Kim**, G.G. Popowich, **F. Souris**, **H. Christani**, J. Maciejko, and J.P. Davis, *Phys. Rev. Lett.* 124, 015301 (2020). - *Selected as an Editors' Suggestion* [doi:10.1103/PhysRevLett.124.015301]

50. Coherent Magneto-optomechanical signal transduction and long-distance phase-shift keying, **M.J. Rudd**, **P.H. Kim**, **C.A. Potts**, **C. Doolin**, **H. Ramp**, **B.D. Hauer**, and J.P. Davis, *Phys. Rev. Applied* 12, 034042 (2019). - *Selected as an Editors' Suggestion* [doi:10.1103/PhysRevApplied.12.034042]

49. Elimination of thermomechanical noise in piezoelectric optomechanical crystals, **H. Ramp**, **B.D. Hauer**, K.C. Balram, **T.J. Clark**, K. Srinivasan, and J.P. Davis, *Phys. Rev. Lett.* 123, 093603 (2019). [doi:10.1103/PhysRevLett.123.093603]

48. Dueling dynamical backaction in a cryogenic optomechanical cavity, **B.D. Hauer**, **T.J. Clark**, **P.H. Kim**, **C. Doolin**, and J.P. Davis, *Phys. Rev. A* 99, 053803 (2019). [doi:10.1103/PhysRevA.99.053803]

47. Two-level system damping in a quasi-one-dimensional optomechanical resonator, **B.D. Hauer**, **P.H. Kim**, **C. Doolin**, **F. Souris**, and J.P Davis, *Phys. Rev. B* 98, 214303 (2018). [doi:10.1103/PhysRevB.98.214303]

46. Cryogenic microwave filter cavity with a tunability greater than 5 GHz, **T.J. Clark**, **V. Vadakkumbatt**, **F. Souris**, **H. Ramp** and J.P Davis, *Rev. Sci. Inst.* 89, 114704 (2018). [doi:10.1063/1.5051042]

45. Phonon quantum nondemolition measurements in nonlinearly coupled optomechanical cavities, **B.D. Hauer**, A. Metelmann and J.P Davis, *Phys. Rev. A* 98, 043804 (2018). [doi:10.1103/PhysRevA.98.043804]

44. Broadband optomechanical transduction of nanomagnetic spin modes, **P.H. Kim**, **F. Fani Sani**, M.R. Freeman and J.P Davis, *Appl. Phys. Lett.* 113, 083104 (2018). [doi:10.1063/1.5039640]

43. Cooperativity enhancement in buckled-dome microcavities with omnidirectional claddings, S. Al-Sumaidae, M.H. Bitarafan, **C.A. Potts**, J.P Davis, and R.G. DeCorby, *Optics Express* 26, 11201 (2018). [doi:10.1364/OE.26.011201] - *Selected as "Editor's Pick".*

42. Magnetic actuation and feedback cooling of a cavity optomechanical torque sensor, **P.H. Kim**, **B.D. Hauer**, **T.J. Clark**, F. Fani Sani, M.R. Freeman and J.P Davis, *Nat. Commun.* 8, 1355 (2017). [doi:10.1038/s41467-017-01380-z]

41. Tuning a 3D microwave cavity via superfluid helium at millikelvin temperatures, **F. Souris**, **H. Christiani** and J.P Davis, *Appl. Phys. Lett.* 111, 172601 (2017). [doi:10.1063/1.4997641] - *Feature article & selected as the cover for the October 23rd issue.*

40. Ultra-low dissipation superfluid micromechanical resonator, **F. Souris**, **X. Rojas**, **P.H. Kim** and J.P Davis, *Phys. Rev. Applied* 7, 044008 (2017). [doi:10.1103/PhysRevApplied.7.044008]

39. Approaching the standard quantum limit of mechanical torque sensing, **P.H. Kim**, **B.D. Hauer**, **C. Doolin**, **F. Souris** and J.P Davis, *Nat. Commun.* 7, 13165 (2016). [doi:10.1038/ncomms13165]

38. Tunable open-access microcavities for on-chip cavity quantum electrodynamics, **C.A. Potts**, A. Melnyk, **H. Ramp**, M.H. Bitarafan, D. Vick, L.J. LeBlanc, J.P Davis and R.G. DeCorby, *Appl. Phys. Lett.* 108, 041103 (2016). [doi:10.1063/1.4940715]

37. Optomechanics and thermometry of cryogenic silica microresonators, **A.J.R. MacDonald**, **B.D. Hauer**, **X. Rojas**, **P.H. Kim**, **G.G. Popowich** and J.P. Davis, *Phys. Rev. A* 93, 013836 (2016). [doi:10.1103/PhysRevA.93.013836]

36. Bistability in buckled dome microcavities, M.H. Bitarafan, **H. Ramp**, **C. Potts**, T.W. Allen, J.P. Davis and R.G. DeCorby, *Optics Letters* 40, 5375 (2015). [doi:10.1364/OL.40.005375]

35. Nonlinear power spectral densities for the harmonic oscillator, **B.D. Hauer**, J. Maciejko and J.P. Davis, *Annals of Physics* 361, 148 (2015). [doi:10.1016/j.aop.2015.05.031]

34. Accurate sensing of the mass distribution of adsorbed molecules and their sublimation from nanomechanical strings, **T.S. Biswas**, Jin Xu, N. Miriyala, **C. Doolin**, T. Thundat, J.P. Davis and K.S.D. Beach, *Phys. Rev. Applied* 3, 064002 (2015). [doi:10.1103/PhysRevApplied.3.064002]

33. Thermo-mechanical characterization of on-chip buckled dome Fabry-Perot microcavities, M.H. Bitarafan, **H. Ramp**, T.W. Allen, **C. Potts**, **X. Rojas**, **A.J.R. MacDonald**, J.P. Davis and R.G. DeCorby, *J. Opt. Soc. Am. B* 32, 1214 (2015). [doi:10.1364/JOSAB.32.001214]

32. Refractometric sensing of Li salt with visible-light Si_3N_4 microdisk resonators, **C. Doolin**, **P. Doolin**, **B.C. Lewis** and J.P. Davis, *Appl. Phys. Lett.* 106, 081104 (2015). [doi:10.1063/1.4913618]

31. Optical microscope and tapered fiber coupling apparatus for a dilution refrigerator, **A.J.R. MacDonald**, **G.G. Popowich**, **B.D. Hauer**, **P.H. Kim**, **A. Fredrick**, **X. Rojas**, **P. Doolin**, and J.P. Davis, *Rev. Sci. Inst.* 86, 013107 (2015). [doi:10.1063/1.4905682]

30. A Superfluid nanomechanical resonator for quantum nanofluidics, **X. Rojas** and J.P. Davis, *Phys. Rev. B* 91, 024503 (2015). [doi:10.1103/PhysRevB.91.024503]

29. Femtogram-scale photothermal spectroscopy of explosive molecules on nanostrings, **T.S. Biswas**, N. Miriyala, **C. Doolin**, X. Liu, T. Thundat and J.P. Davis, *Analytical Chemistry* 86, 11368-11372 (2014). [doi:10.1021/ac503318e]

28. Dissipative and dispersive optomechanics in a nanocavity torque sensor, M. Wu, A.C. Hryciw, C.J. Healey, D.P. Lake, H. Jayakumar, M.R. Freeman, J.P. Davis and P.E. Barclay, *Phys. Rev. X* 4, 021052 (2014). [doi:10.1103/PhysRevX.4.021052]

27. Nonlinear optomechanics in the stationary regime, **C. Doolin**, **B.D. Hauer**, **P.H. Kim**, **A.J.R. MacDonald**, **H. Ramp** and J.P. Davis, *Phys. Rev. A* 89, 053838 (2014). [doi:10.1103/PhysRevA.89.053838]

26. Ultrasonic interferometer for first-sound measurements of confined liquid ^{4}He, **X. Rojas**, **B.D. Hauer**, **A.J.R. MacDonald**, **P. Saberi**, **Y. Yang** and J.P. Davis, *Phys. Rev. B* 89, 174508 (2014). [doi:10.1103/PhysRevB.89.174508]

25. Remote sensing in hybridized arrays of nanostrings, **T.S. Biswas**, Jin Xu, **X. Rojas**, **C. Doolin**, **A. Suhel**, K.S.D. Beach and J.P. Davis, *Nano. Lett.* 14, 2541-2545 (2014). [doi:10.1021/nl500337q]

24. On-chip cavity optomechanical coupling, **B.D. Hauer**, **P.H. Kim**, **C. Doolin**, **A.J.R. MacDonald**, **H. Ramp** and J.P. Davis, *EPJ Techniques and Instrumentation* 1, 4 (2014). [doi:10.1140/epjti4]

23. Multidimensional optomechanical cantilevers for high frequency force sensing, **C. Doolin**, **P.H. Kim**, **B.D. Hauer**, **A.J.R. MacDonald** and J.P. Davis, *New Journal of Physics* 16, 035001 (2014). [doi:10.1088/1367-2630/16/3/035001]

22. A general procedure for thermomechanical calibration of nano/micro-mechanical resonators, **B.D. Hauer**, **C. Doolin**, K.S.D. Beach and J.P. Davis, *Annals of Physics* 339, 181 (2013). [doi:10.1016/j.aop.2013.08.003]

21. Quantitative magneto-mechanical detection and control of the Barkhausen effect, J.A.J. Burgess, A.E. Fraser, F. Fani Sani, D. Vick, **B.D. Hauer**, J.P. Davis and M.R. Freeman, *Science* 339, 1051 (2013). - *Selected for Science Express.* [doi:10.1126/science.1231390]

20. Nanoscale torsional optomechanics, **P.H. Kim**, **C. Doolin**, **B.D. Hauer**, M.R. Freeman, P.E. Barclay and J.P. Davis, *Appl. Phys. Lett.* 102, 053102 (2013). - *Selected as the cover for the February 4th issue. - One of most downloaded papers of APL in February 2013.* [doi:10.1063/1.4789442] *Also selected for a Nature Research Highlight* [doi/10.1038/494151b]

19. High-Q gold and silicon nitride bilayer nanostrings, **T.S. Biswas**, **A. Suhel**, **B.D. Hauer**, **A. Palomino**, K.S.D. Beach and J.P. Davis, *Appl. Phys. Lett.* 101, 093105 (2012). [doi:10.1063/1.4748977]

18. Microfluidic and nanofluidic cavities for quantum fluids experiments, **A. Duh**, **A. Suhel**, **B.D. Hauer**, **R. Saeedi**, **P.H. Kim**, **T.S. Biswas** and J.P. Davis, *J. Low Temp. Phys.* 168, 31 (2012). [doi:10.1007/s10909-012-0617-4]

17. Dissipation mechanisms in thermomechanically driven silicon nitride nanostrings, **A. Suhel**, **B.D. Hauer**, **T.S. Biswas**, K.S.D. Beach and J.P. Davis, *Appl. Phys. Lett.* 100, 173111 (2012). [doi:10.1063/1.4704914]

16. Thermally activated decay of magnetic vortices, J.A.J. Burgess, D.C. Fortin, J.E. Losby, D. Grombacher, J.P. Davis and M.R. Freeman, *Phys. Rev. B* 82, 144403 (2010). [doi:10.1103/PhysRevB.82.144403]

15. Observation of magnetic supercooling of the transition to the vortex state, J.P. Davis, D. Vick, J.A.J. Burgess, D.C. Fortin, P. Li, V. Sauer, W.K. Hiebert and M.R. Freeman, *New J. of Physics* 12, 093033 (2010). [doi:10.1088/1367-2630/12/9/093033]

14. Observation of the transition between real and complex superconducting order parameters phases in UPt_3, J.D. Strand, D.J. Bahr, D.J. Van Harlingen, J.P. Davis, W.J. Gannon, W.P. Halperin, *Science* 328, 1368 (2010). [doi:10.1126/science.1187943]

13. Nano-torsional resonator torque magnetometry, J.P. Davis, D. Vick, D.C. Fortin, J.A.J. Burgess, W.K. Hiebert and M.R. Freeman, *Appl. Phys. Lett.* 96, 072513 (2010). - *Selected as the Research Highlight for March 2010.* [doi:10.1063/1.3319502]

12. Impurity scattering of ^{3}He in aerogel, W.P. Halperin, H. Choi, J.P. Davis and J. Pollanen, *J. Phys. Soc. Jpn.* 77, 111002 (2008). [doi:10.1143/JPSJ.77.111002]

11. High frequency sound in superfluid ^{3}He-B, J.P. Davis, H. Choi, J. Pollanen and W.P. Halperin, *J. Low Temp. Phys.* 153, 1 (2008). [doi:10.1007/s10909-008-9819-1]

10. Anomalous Attenuation of transverse sound in ^{3}He, J.P. Davis, J. Pollanen, H. Choi, J.A. Sauls, W.P. Halperin and A.B. Vorontsov, *Phys. Rev. Lett.* 101, 085301 (2008). [doi:10.1103/PhysRevLett.101.085301]

9. Globally anisotropic high porosity silica aerogels, J. Pollanen, K. Shirer, S. Blinstein, J.P. Davis, H. Choi, T.M. Lippman, L.B. Lurio and W.P. Halperin, *J. Non-Crystalline Solids* 354, 4668-4674 (2008). [doi:10.1016/j.jnoncrysol.2008.05.047]

8. Discovery of a new excited pair state in superfluid ^{3}He, J.P. Davis, J. Pollanen, H. Choi, J.A. Sauls and W.P. Halperin, *Nature Physics* 4, 571-575 (2008). [doi:10.1038/nphys969]

7. Magnetoresistance of UPt_3, T.M. Lippman, H. Choi, J.P. Davis, J. Pollanen, W.J Gannon and W.P. Halperin, *New J. of Physics* 10, 043006 (2008). [doi:10.1088/1367-2630/10/4/043006]

6. Stability of the axial phase of superfluid ^{3}He in aerogel with globally anisotropic scattering, J.P. Davis, J. Pollanen, B. Reddy, K.R. Shirer, H. Choi and W.P. Halperin, *Phys. Rev. B* 77, 140502(R) (2008). [doi:10.1103/PhysRevB.77.140502]

5. Magneto-acoustic spectroscopy in superfluid ^{3}He-B, J.P. Davis, H. Choi, J. Pollanen and W.P. Halperin, *Phys. Rev. Lett.* 100, 015301 (2008). [doi:10.1103/PhysRevLett.100.015301]

4. Strong coupling corrections to the Ginzburg-Landau theory of superfluid ^{3}He, H. Choi, J.P. Davis, J. Pollanen, T. M. Haard and W. P. Halperin, *Phys. Rev. B* 75, 174503 (2007). [doi:10.1103/PhysRevB.75.174503]

3. Collective modes and f-wave pairing interactions in superfluid ^{3}He, J.P. Davis, H. Choi, J. Pollanen and W.P. Halperin, *Phys. Rev. Lett.* 97, 115301 (2006). [doi:10.1103/PhysRevLett.97.115301]

2. Surface specific heat and Andreev bound states, H. Choi, J.P. Davis, J. Pollanen and W.P. Halperin, *Phys. Rev. Lett.* 96, 125301 (2006). [doi:10.1103/PhysRevLett.96.125301]

1. Specific heat of disordered superfluid ^{3}He, H. Choi, K. Yawata, T.M. Haard, J.P. Davis, G. Gervais, N. Mulders, P. Sharma, J.A. Sauls and W.P. Halperin, *Phys. Rev. Lett.* 93, 145301 (2004). [doi:10.1103/PhysRevLett.93.145301]

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18. Community Report from the 2025 SNOLAB Future Projects Workshop, M.D. Diamond, *et al.* (2025). [arXiv:2507.11368]

17. Dynamical backaction magnomechanics and its evasion, **Y. Huang**, **C.A. Potts** and J.P. Davis, *Proceedings Volume 12656, Spintronics XVI*, 126560D (2023). [doi:10.1117/12.2677558]

16. Measuring twists with cavity optomechanics, **P.H. Kim**, **B.D. Hauer**, **C. Doolin**, **A.J.R. MacDonald**, **H. Ramp** and J.P. Davis, *Physics in Canada* 71, No. 3, 150 (2015). [link to CAP website]

15. Optomechanical torsional sensing in photonic crystal split-beam nanocavities, M. Wu, A.C. Hryciw, M.R. Freeman, J.P. Davis, P.E. Barclay, *CLEO: Science and Innovations*, (2013).

14. Dissipation Mechanisms In thermomechanically driven silicon nitride nanostrings, **B.D. Hauer**, **A. Suhel**, **T.S. Biswas**, K.S.D. Beach, and J.P. Davis, *Physics in Canada* 68, No. 3, 134 (2012). [link to pdf at CAP website]

13. Photonic crystal paddle nanocavities for optomechanical torsion sensing, M. Wu, A.C. Hryciw, B. Khanaliloo, M.R. Freeman, J.P. Davis, P.E. Barclay, *CLEO: Science and Innovations*, May 6 (2012).

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10. Superfluid phase stability of ^{3}He in axially anisotropic aerogel, J. Pollanen, J.P. Davis, B. Reddy, K.R. Shirer, H. Choi and W.P. Halperin, *Journal of Physics: Conference Series* 150, 032084 (2009). [doi:10.1088/1742-6596/150/3/032084]

9. Low temperature thermal resistance for a new design of silver sinter heat exchanger, J. Pollanen, H. Choi, J.P. Davis, B.T. Rolfs, and W.P. Halperin, *Journal of Physics: Conference Series* 150, 012037 (2009). [doi:10.1088/1742-6596/150/1/012037]

8. Magnetoresistance of UPt_3, T.M. Lippman, J.P. Davis, H. Choi, J. Pollanen and W.P. Halperin, *J. Low Temp. Phys.* 148, 863 (2007). [doi:10.1007/s10909-007-9469-8]

7. Anisotropic aerogels for studying superfluid ^{3}He, J. Pollanen, S. Blinstein, H. Choi, J.P. Davis, T.M. Lippman, L.B. Lurio and W.P. Halperin, *J. Low Temp. Phys.* 148, 579 (2007). [doi:10.1007/s10909-007-9449-z]

6. Analysis of strong-coupling parameters for superfluid ^{3}He, H. Choi, J.P. Davis, J. Pollanen, T.M. Haard and W.P. Halperin, *J. Low Temp. Phys.* 148, 507 (2007). [doi:10.1007/s10909-007-9420-z]

5. Imaginary squashing mode spectroscopy of helium three B, J.P. Davis H. Choi, J. Pollanen and W.P. Halperin, *J. Low Temp. Phys.* 148, 501 (2007). [doi:10.1007/s10909-007-9417-7]

4. Specific heat of disordered ^{3}He, AIP Proceedings, H. Choi, J.P. Davis, J. Pollanen, N. Mulders and W.P. Halperin, *AIP Conf. Proc.* 850, 241 (2006). [doi:10.1063/1.2354683]

3. Acoustic spectroscopy of superfluid ^{3}He in aerogel, J.P. Davis, H. Choi, J. Pollanen and W.P. Halperin, *AIP Conf. Proc.* 850, 239 (2006). [doi:10.1063/1.2354682]

2. Compressed silica aerogels for the study of superfluid ^{3}He in aerogel, J. Pollanen, H. Choi, J.P. Davis, S. Blinstein, T.M. Lippman, L.B. Lurio, N. Mulders and W.P. Halperin, *AIP Conf. Proc.* 850, 237 (2006). [doi:10.1063/1.2354681]

1. Ternary phase diagram studies in Ti-Zr-Ni alloys, J.P. Davis, E.H. Majzoub, J.M. Simmons and K.F. Kelton, *Materials Science and Engineering A* 294, 104 (2000). [doi:10.1016/S0921-5093(00)01093-5]

FUNDING

- NSERC Alliance + Alberta Innvovates Advance, 2025 - 300k over two years
- Mitacs Accelerate for 16 months
- NSERC Alliance Canada-France, 2024 - 300k over three years
- NSERC Discovery 2021 - 95k per year for 5 years
- NSERC Quantum Consortium led by Prof. LeBlanc - ARAQNE - 63k per year for 5 years
- NSERC Quantum Consortium led by Prof. Jennewein - QUINT - 52.6k per year for 5 years
- NSERC Quantum Consortium led by Prof. Juan - CanQuEST - 57k per year for 5 years
- Alberta Innvovates Advance Discovery Supplement - 20k per year for 2 years
- NSERC Alliance + Alberta Innvovates Advance, 2021 - 300k over two years
- NRC Quantum Sensing project - 204k over two years
- CFI Innovation 2020 - UofA lead, awarded 4.9M for quantum-system nanofabrication infrastructure (total project led by UofC, awarded 13M)
- Alberta Innovates Major Initiative Fund: Quantum Technologies - 660k of 5.8M
- NSERC CREATE 2017 (lead applicant for team of six PIs) - 2.83M over 8 years including university matching
- CFI Innovation 2017 - UofA lead, awarded 2.78M for hybrid quantum system infrastructure (total project led by UofC, awarded 6.8M)
- Alberta Innovates Strategic Research Project - 231k per year for three years
- Mitacs Business Strategy Internship - 15k
- Gordon and Betty Moore Foundation Visitor Award - 5k
- NSERC Discovery 2016 & Accelerator Supplement - 62k per year for 5 years (Discovery), plus 40k per year for 3 years (Accelerator)
- NSERC CRD - 75k over 2 years
- McDonald Institute HQP Pooled Resources Competition - 42k over 2 years (PhD) and 12k for 1 year (BSc)
- NSERC Engage + AITF CASBE 2017 - 50k for 1 year
- Quantum Alberta Quantum Network Funding - 88.5k for one year
- NSERC SPG 2016 (co-applicant) - 1/3 share of 192k per year for 3 years
- NSERC SPG 2016 (co-applicant) - 1/3 share of 178k per year for 3 years
- Petro-Canada Young Innovator Award 2016 - 10k for one year
- NSERC Engage 2015 - 25k for 6 months
- Department of National Defence: Targeted Engagement Grant Program - 7.5k once
- Alfred P. Sloan Foundation 2013 - 50k over two years
- AITF iCore Strategic Chair 2012 - 175k per year for 3 years
- CFI 2010: Equipment & operating funds - 376k and 94k respectively
- Grand Challenges Canada: Stars in Global Health - 100k for 18 months
- NSERC Research Tools and Instruments ($\times 2$) - 150k and 53k
- nanoBridge - 75k for one year
- UofA: Faculty of Science & VPR - 745k (startup) and 43k (equipment)
- Canada School of Energy and the Environment ($\times 2$) - 25k each
- Member of Alberta Innovates Health Solutions team funding - 30k per year for 3 years
- NRC NINT: 200k (startup) and team funding of $\sim$15k per year for 5 years
- Alberta Innovates Technology Futures team funding - 30k per year for 3 years

SELECT PRESENTATIONS

- ◇ Invited Talk at American Vacuum Society (AVS), Pittsburgh, PA, November 2026.
- ◇ Invited Speaker at 2026 International Workshop on Nanomechanical Sensing, Ottawa, ON, June 2026.
- ◇ Invited Tutorial Speaker at Quantum Technology Summer School, Orford, QC, May 2026.
- ◇ Invited Talk at APS Global Physics Summit, Denver, CO, March 2026.
- ◇ Keynote Speaker at Chimera in the Alps, Les Houches, France, February 2026.
- ◇ Invited Session Leader at Mechanical Systems in the Quantum Regime GRC, Lucca, Italy, January 2026.
- ◇ Invited Talk at the Physics of Quantum Electronics (PQE) 2026, Snowbird, January 2026.
- ◇ Invited Talk at University of Oregon, Eugene, Oregon, November 2025.
- ◇ Invited Talk at University of Tennessee, Knoxville, Tennessee, November 2025.
- ◇ Virtual Talk at Karlsruhe Inst. of Technology, Karlsruhe, Germany, November 2025.
- ◇ Virtual Talk at SuperMeQ Workshop, Munich, Germany, October 2025.
- ◇ Invited Talk at ULT2025, Lancaster, England, August 2025.
- ◇ Invited Talk at LT30, Bilbao, Spain, August 2025.
- ◇ Invited Talk at Photonics North, Ottawa, May 2025.
- ◇ Plenary Talk at 2025 Cryogenic Engineering Conference (CEC) and International Cryogenic Materials Conference (ICMC), Reno NV, May 2025.
- ◇ Featured Panelist at MaQTech Entrepreneurship Seminar, virtual, February 2025.
- ◇ Invited Talk at the SuperMeQ Micromechanics, Obergurgl, Austria, February 2025.
- ◇ Invited Talk at the Physics of Quantum Electronics (PQE) 2025, Snowbird, January 2025.
- ◇ Invited Talk at University of New Mexico, Albuquerque NM, November 2024.
- ◇ Invited Talk at Northwestern University, Evanston IL, September 2024.
- ◇ Invited Talk at Midwest Quantum Collaboratory 2024, Lansing MI, August 2024.
- ◇ Invited Talk at International Materials Research Congress 2024, Cancun, August 2024.
- ◇ Invited Talk at International Quantum Fluids and Solids conference, Florida, July 2024.
- ◇ Invited Talk at Quantum Sensing Workshop (MQSens), Espoo, Finland, June 2024.
- ◇ Invited Talk at Photonics North, Vancouver, May 2024.
- ◇ Invited Colloquium at Yale, New Haven, April 2024.
- ◇ Invited Talk at Mechanical Systems in the Quantum Regime GRC, Ventura, March 2024.
- ◇ Invited Tutorial at CIFAR Quantum Information Student Meeting, Banff, October 2023.
- ◇ Invited Talk at SPIE Spintronics XVI, San Diego, August 2023.
- ◇ Invited Seminar at Center of Quantum Information Physics, NYU, May 2023.
- ◇ Invited Seminar at the Institute Quantique, Sherbrooke, April 2023.
- ◇ Invited Panel Member at Quantum Days, virtual, January 2023.
- ◇ Invited Talk at the Physics of Quantum Electronics (PQE) 2023, Snowbird, January 2023.
- ◇ Invited Talk at Spin Cavitronics IV Workshop, Erlangen, Germany, December 2022.
- ◇ Invited Talk at NRC Nano, Edmonton, AB, November 2022.
- ◇ Invited Talk at Jim Sauls Festival, Evanston, Illinois, October 2022.
- ◇ Invited Talk at Alberta Quantum Summit, Calgary, Alberta, October 2022.
- ◇ Invited Talk at Spin Mechanics 7, Gerolfingen, Germany, August 2022 - declined.
- ◇ Invited Talk at the LT29, Sapporo, Japan, August 2022.
- ◇ Invited Panel Member at Mitacs workshop, Quantum Entrepreneurship, June 2022.
- ◇ Plenary Talk at Annual Meeting of the APS Northwest Section, Kamloops, June 2022.
- ◇ Invited Talk at the UniKorn Optomechanics Seminar Series, UK, April 2022.
- ◇ Invited Talk at University of Kentucky, Lexington, April 2022.
- ◇ Invited Talk at the APS March Meeting 2022, Chicago, March 2022.
- ◇ Invited Talk at Workshop on Superfluid Optomechanics, Daejeon, Korea, January 2022.
- ◇ Invited Talk at the Annual Meeting of the APS Northwest Section, October 2021 — Cancelled.
- ◇ Invited Talk at Sacramento State, Sacramento, CA, September 2021.
- ◇ Invited Talk at Quantum Fluids and Solids, Bangalore, India, August 2021.
- ◇ Invited Talk at the Kitchener-Waterloo Quantum Enthusiasts meet-up, February 2021.
- ◇ Invited Talk at the Ginzton Laboratory, Stanford University, Stanford, October 2020.
- ◇ Invited Talk at LT29, Sapporo, Japan, August 2020 — Cancelled.
- ◇ Plenary Talk at 21st Annual Meeting of the APS Northwest Section, Kamloops, May 2020 — Cancelled.
- ◇ Invited Talk at APS March Meeting 2020, Denver, March 2020 — Cancelled.
- ◇ Invited Talk at the Physics of Quantum Electronics (PQE) 2020, Snowbird, January 2020.

PRESENTATIONS CONTINUED

- ◇ Talk at "A tribute to the career of John Beamish", Edmonton, December 2019.
- ◇ Invited Talk at Quantum Alberta Workshop 2019, Edmonton, July 2019.
- ◇ Invited Talk at Photonics North, Québec City, May 2019.
- ◇ Invited Colloquium at Simon Fraser University, Burnaby, March 2019.
- ◇ Invited Seminar at D-Wave Systems, Burnaby, March 2019.
- ◇ Talk at 2019 Frontiers of Nanomechanical Systems, Palm Springs, CA, February 2019.
- ◇ Invited Talk at AVS International Symposium 65, Long Beach, CA, October 2018.
- ◇ Invited Talk at QFS2018, Tokyo, Japan, July 2018.
- ◇ Invited Talk at Canadian Association of Physicists Congress, Halifax, NS, June 2018.
- ◇ Invited Seminar at Michigan State University, East Lansing, MI, April 2018.
- ◇ Invited Seminar at Princeton University, Princeton, NJ, November 2017.
- ◇ Invited Talk at Photonics North, Ottowa, June 2017.
- ◇ Invited Talk at Spin Mechanics 4, Banff, February 2017.
- ◇ Invited Seminar at Brown University, Providence, RI, September 2016.
- ◇ Invited Colloquium at the Univ. of Lethbridge, Lethbridge, March 2016.
- ◇ Invited Talk at GRC: Mechanical Systems in the Quantum Regime, Ventura, CA, 2016.
- ◇ Invited Seminar at the Univ. of British Columbia, Vancouver, February 2016.
- ◇ Invited docent for "Grand Challenges in QFS", University of Buffalo, August 2015.
- ◇ Invited Talk at QFS2015, Buffalo, NY, August 2015.
- ◇ Invited Talk at the Canadian Association of Physicists Congress, June 2015.
- ◇ "How and why we quest for absolute zero" at University of Alberta alumni events, Vancouver & Victoria, April 2015.
- ◇ Invited Talk on Helium Availability at the APS March Meeting, March 2015.
- ◇ Invited Talk "nanomechanics: from the exotic to the practical"
- ◇ Invited Seminar, University of Florida, February 2015.
- ◇ Invited Seminar, Washington University, February 2015.
- ◇ Invited Colloquium, University of Calgary, January 2015.
- ◇ Invited Seminar, University of Toronto, December 2014.
- ◇ Invited Seminar, Northwestern University, February 2014.
- ◇ Invited Colloquium in the Dept. of Physics, University of Waterloo, February 2014.
- ◇ Invited Seminar in the Department of Applied Physics, Caltech, February 2014.
- ◇ Invited Talk at the Opto- and Electro-Mechanics Workshop, Italy, January 2014.
- ◇ Invited Talk at the Livestock Gentec Symposium, AB, November 2013.
- ◇ Invited Seminar at the University of Virginia, VA, March 2013.
- ◇ Presentation at CIFAR Nanoelectronics, Vancouver, BC, November 2012.
- ◇ Presentation at Metabolomic Technologies Inc. Edmonton, AB, August 2012.
- ◇ Invited Talk at the 3^{rd} Korea-Japan Workshop on Quantum Phenomena in Helium, Daejon, Korea, Dec. 2010.
- ◇ Invited talk at CIFAR Nanoelectronics, Banff, AB, November 2010.
- ◇ Physics Dept. Colloquium at the University of Alberta, Edmonton, AB, April 2010.
- ◇ Invited Seminar at the University of Pittsburgh, Pennsylvania, January 2010.

MEDIA

Op-ed piece about quantum technology in Canada, with Mitacs CEO John Hepburn, in Edmonton Journal, August 13th, 2023.

Story about our spin-off, Resolved Instruments, in CMC Microsystems newsletter.

Story about our spin-off, Resolved Instruments, in UofA Science Contours alumni magazine.

Write up in Avenue Magazine about our low-temperature lab.

Story about our nanomechanics research in Edmonton Journal, May 5^{th}, 2013.

Front page story in the Edmonton Journal, February 16^{th}, 2013 about receiving the Sloan Fellowship.

Front page cover story in the Edmonton Journal, May 14^{th}, 2012 about low-temperature lab.

Featured in the April 17^{th}, 2012 (Vol. 26, No. 5) issue of superconducting industry trade magazine: Superconductor Week.

Article in Chronicle of Higher Education.

Story about our lab in Canadian Geographic Magazine, October 2012 issue.
Live on CTV "Afternoon Express" on August 7^{th}, 2012 discussing helium conservation.

Article on cold, and our lab, in the St. Albert Gazette.

CJSR Campus Radio: Sound of Science Podcast

OTHER

- Co-Founder and Chief Technology Officer at Zero Point Cryogenics (www.zpcryo.com)
- Patent US12372274B1 "Helium phase separation refrigerator"
- Director and lead PI of the Quanta NSERC CREATE program (2016-2024)
- Editorial Board of the Journal of Low Temperature Physics (2025-)
- Co-Founder, VP, and Chief Innovation Officer at Resolved Instruments (2017-2024)
- External Advisory Board of EU-consortium "SuperMeQ"
- Co-chair of organizing committee for QFS2019
- Patent US20190277747A1 "Optically Heated and Optically Measured Fouling Sensor"
- External Departmental Program Reviewer, Physics, Univ. of Saskatchewan, 2025
- Member of International Program Advisory Committee for QFS2021, Bangalore India
- Member of QFS Steering Committee 2020-2025
- Member of International Advisory Committee for 29th International Conference on Low Temperature Physics in Sapporo, Japan, 2020
- Faculty mentor for organizing team of CUPC 2018
- Graduate student Paul Kim won 1st place in Raith Micrograph image contest 2017
- Graduate student Alex Shook invited to speak at QFS 2023 and 2024.
- Postdoctoral Fellow Xavier Rojas awarded prestigious AITF Postdoctoral Fellowship
- Postdoctoral Fellow Xavier Rojas invited to speak at QFS 2013 and 2015
- Postdoctoral Fellow Emil Varga invited to speak at LT29
- Graduate student Allison MacDonald DCMMP division finalist in student oral competition at the 2015 Canadian Association of Physicists Conference
- Graduate student Paul Kim won best overall student poster at CAP 2015
- Graduate student Brad Hauer won best overall student talk at CAP 2012
- Graduate admissions and recruiting committee 2010-2013, 2018
- Co-organizer of the Alberta Quantum-Nano Workshop 2011, 2014, 2016, and 2018
- Executive committee of the Alberta Innovates funded Quantum Alberta 2014-2023
- Science representative on Engineering Faculty Council 2017-2020
- Lifetime member of the APS and DCMP
- Board of Directors / Treasurer of Garneau/University Early Learning Centre 2018-2020
- Vice-Chair of Parent Council of Garneau School 2019-2020

TEACHING

- ◇ 4 terms of PHYS310 - Thermodynamics ($\sim$ 60 students)
- ◇ 1 term of PHYS294 - General Physics Laboratory (24 students)
- ◇ 2 terms of PHYS311 - Statistical Physics ($\sim$ 50 students)
- ◇ 4 terms of PHYS495/595 - Physics Innovation and Entrepreneurship (15 students)
- ◇ 5 terms of PHYS130 - Wave Motion, Optics and Sound - lecturer ($\sim$ 250 students) and course coordinator (3 terms, 4 sections each term, $\sim$ 1000 students)
- ◇ 4 terms of PHYS208 - Aspects of Modern Physics ($\sim$ 60 students)
- ◇ 2 terms of Science Internship Program coordinator for Physics

CURRENT PERSONNEL

Postdoctoral Fellows:

Dr. Yunhu Huang
Dr. Mehri Ebrahimi
Dr. Zhoulin Xie

PhD Students:

Ali Rashedi - Doctoral Recruitment Award, AI AGES, Department of Physics PhD Research Award
Matthew Rudd - NSERC CGS-M & PGS-D, AI AGES
Marvin Hirschel - AI AGES
Daksh Malhotra
Aymar Muhikira - Elite Scholarship
Omar Khalaf - MacDonald Institute HQP

Master's Students:

Harmon Bovee - NSERC CGS-M
Jackson Marlett

Undergraduate Students:

Ashwati Sanjay - MacDonald Institute HQP
Simon Corzaa

FORMER PERSONNEL

Postdoctoral Fellows:

Dr. Alex Shook
- now Research Scientist at D-Wave

Dr. Sebastian Spence
- now Project Manager at Leiden Cryogenics

Dr. Emil Varga
- now Principal Investigator in the Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

Dr. Vaisakh Vadakkumbatt
- now Faculty member at IIT Kharagpur, Department of Cryogenic Engineering, Kharagpur, India

Dr. Callum Doolin
- now Founder and President of Resolved Instruments

Dr. Fabien Souris
- now Research Scientist at Institut NÈEL CNRS

Dr. Fatemeh Fani Sani
- now at Research Associate at University of Waterloo

Dr. Xavier Rojas - AITF Postdoctoral Fellowship
- now Faculty member at Royal Holloway with prestigious Royal Society Fellowship

PhD Students:

Marvin Hirschel
- Thesis: "Listening to the Sound of Gravitational Waves and Dark Matter with Superfluid Helium"
- October 2025, awarded Faculty of Science Dissertation Award
- now Research Scientist at Zero Point Cryogenics

Alexander Shook
- Thesis: "Fourth Sound Helmholtz Resonator as a Probe for Confined Superfluid ^{3}He"
- January 2025, awarded Faculty of Science Dissertation Award
- next Post-Doctoral Fellow in our group, now Research Scientist at D-Wave

Clinton Potts
- Thesis: "Cavity magnomechanics: Dynamical Backaction" - August 2022
- next Banting Post-Doctoral Fellow at TU Delft, now Assistant Professor in ECE at UCalgary

Hugh Ramp
- Thesis: "Microwave to Telecom Wavelength Transduction" - September 2020
- Research Scientist at D-Wave Systems,

Bradley D. Hauer
- Thesis: "On-Chip Silicon Optomechanical Cavities at Low Temperatures" - December 2019
- was Banting Post-Doctoral Fellow at NIST, Boulder, now Assistant Professor in ECE at Univ. of Waterloo

Callum Doolin
- Thesis: "Integrated optical and mechanical resonators for evanescent field sensing" - August 2019
- now Founder and President of Resolved Instruments

Paul H. Kim
- Thesis: "Passive and Active Cooling of Cavity Optomechanical Torque Sensors for Magnetometry Applications" - April 2019
- now Lead Scientist at Zero Point Cryogenics

Tushar S. Biswas
- Thesis: "Fabrication, Characterization, and Applications of Nanomechanical Resonators" - June 2017
- now Research Council Officer at the NRC Canadian Photonics Fabrication Centre

FORMER PERSONNEL CONTINUED

Master's Students:

Scott Agnew
- Thesis: "Design, Fabrication, and Measurement of a Silicon Nitride Optomechanical Crystal" - January 2023
- now Data Scientist at Trans Mountain

Sean McClure
- Thesis: "Developing a platform for Low Temperature Superconducting Electromechanics" - January 2022
- was Research Scientist at D-Wave Systems
  now Research Scientist at Pasqual

Tommy Clark
- Thesis: "Applications of superconducting re-entrant microwave cavities" - August 2019
- now PhD student at McGill University

Muhammad Ruhul Amin
- Thesis: "Sensing applications of nanomechanical resonators" - January 2017
- now PhD student at Univ. of Saskatchewan

Clinton Potts - NSERC PGS-M (co-supervised with Ray DeCorby of ECE)
- Thesis: "Integrated Devices for On-Chip Quantum Optics"- December 2016
- then PhD student in my group

Allison MacDonald - NSERC PGS-M, AITF Graduate Scholarship, QEII
- Thesis: "Cryogenic Optomechanics with Silica Microresonators" - March 2015
- now Lead Experimental Physicist at D-Wave Systems

Kyle Reid
- Thesis: "Measuring Optomechanics with a Photon STM" - Jan. 2015
- now Research Scientist at Heraeus

Paul H. Kim - Queen Elizabeth Scholarship, NINT RA
- Thesis: "Nanoscale Torsional Optomechanics" - May 2014
- now Lead Scientist at Zero Point Cryogenics

Yikai Yang
- Thesis: "Electrical Properties of Al-Ge Granular Superconducting Films" - Dec. 2013
- was PhD student at EPFL, now PDF at University of Oxford

Research Assistant:

Abdul H. Suhel - now Non-Destructive Testing Technician at Acuren

Visiting Researchers:

Junko Kiriyama-Taniguichi - University of Electro-Communications, Tokyo, Japan
Florian Schweizer - MSc internship from University of Tübingen, Germany

FORMER PERSONNEL CONTINUED

Undergraduate Students:

Leyla Saraj - NSERC USRA, Departmental SUPRE awardee
Harmon Bovee - Engg Phys Co-op & NSERC USRA, now MSc in group
Ishaq Lee Son - now Graduate student at UofA
James Suranyi - Mitacs Internship (now Research Scientist at Zero Point Cryogenics)
Aymar Muhikira - (now MSc student in our group)
Noah Baker - (now graduate student at Univ. of Toronto)
Robyn Learn - NSERC USRA (now PhD student at Univ. of Toronto)
Myles Ruether - (now Research Technician at SFU)
Matthew Rudd - Engg Phys Co-op & Departmental SUPRE awardee - now PhD student in our group
Camryn Undershute - Departmental SUPRE awardee (now PhD student at Michigan State)
Nick Sorensen - Now MSc student at University of Ottawa
Sean McClure - Departmental SUPRE awardee - (now Research Technician at D-Wave Systems)
Ted Robinson - Departmental SUPRE awardee
Holly Christiani - URI Research Stipend - (now Research Technician at D-Wave Systems)
Matthew Thiessen - NSERC USRA
Tyler Zimmerling - NSERC USRA
Pearse Doolin - (now software developer at Imperva)
Tommy Clark- NSERC USRA - (now PhD student at McGill University)
John Grey
Alberto Palomino - URI - (now Master's Program in Space Science at the University of Pisa)
Davis Iwaniuk - deceased
Aron Fredrick - NSERC USRA (now grad student at UBC)
Parnian Saberi - Ryerson Co-op, nanoUSRA (now pursuing PhD at University of Toronto)
Benjamin Rehl - nanoUSRA (now grad student in Dept. of Chemistry, U of A)
Alex Hoy
Andrej Duh - International Student Work Study Program
Soonho Kwon - STEP (now co-Founder and CEO of EarlierCare)
Stephen Portillo - NSERC USRA (now pursuing PhD at Harvard University)
Rahmat Saeedi

High School Students:

Whitney Malaba - Elite Internship
Brynn Lewis - Wisest Internship